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| Product Name | : IRF5 inhibitor N5-1 | NH2-Pro-Arg-Arg-Val-Arg-Leu-Lys-COOH |
| Cat. No. | : PC-72047 | |
| CAS No. | : 2088834-66-4 | |
| Molecular Formula | : C ₄₀ H ₇₇ N ₁₇ O ₈ | |
| Molecular Weight | : 924.15 | |
| Target | : Other Targets | |
| Solubility | : 10 mM in DMSO | |

Biological Activity

IRF5 inhibitor N5-1 (PRRVRLK) is a cell permeable, IRF5 peptide mimetic that selectively bind to and stabilizes the inactive **IRF5** monomer with KD of 98.8 nM.

IRF5 inhibitor N5-1 binds to endogenous IRF5, but not IRF3 or IRF7, in human primary monocytes.

IRF5 inhibitor N5-1 significantly reduced R848-induced IRF5 nuclear translocation in monocytes.

IRF5 inhibitor N5-1 binds to the C-terminal IAD of inactive IRF5 monomer and inhibits phosphorylation of Ser462, readily enters primary immune cells to inhibit R848-induced IRF5 nuclear translocation with low associated toxicity.

IRF5 inhibitor N5-1 is a potent inhibitor of TLR7-induced IRF5 nuclear translocation in monocytes and B cells, selectively inhibits IRF5-mediated inflammatory cytokine expression in PBMCs.

IRF5 inhibitor N5-1 attenuated IL-6 production and IRF5 hyperactivation in NZB/W F1 mice, and reduced kidney pathology and increased overall survival in NZB/W F1 mice from spontaneous onset of lupus and mortality.

References

Su Song, et al. *J Clin Invest.* 2020 Dec 1;130(12):6700-6717.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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